Plasma flows observed by Interball at high-latitude magnetopause

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We analyze magnetopause crossings at high latitude dayside magnetopause as observed by Interball Tail probe. Sort-time plasma flows with directions strongly deviating from surrounding magnetosheath flow direction are frequently observed in this region. Several quasi-periodic velocity variations are observed at times. Plasma parameters, such as number density, temperature, and bulk velocity of these flows are close to magnetosheath values. These anomalous flows are observed almost at every magnetopause crossing in this region. Ion velocity distributions within these anomalous plasma flows indicate that they are associated with the motion of reconnected field tubes. Examples of anomalous flows and statistical data on these flows are presented.

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